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ABSTRACT

This project report describes how the Pima County Adult Education's Workplace Education Project provided workplace education at 11 Arizona worksites to 355 workers. The following activities are discussed: 27 class cycles were completed; the average class cycle was 11 weeks; pretests/posttests results indicated educational gains and gains in self-esteem; instructors combined the common components of the company-specific curricula by subject and developed a generic curriculum for each content area; during the second year, instructors updated the generic curricula and added curricula and job-specific matrixes; all staff received one-to-one and small group training on an ongoing basis; and advisory committees were a useful tool for keeping classes relevant, participatory, and learner centered. The appendix contains the following: (1) generic curricula--English to Speakers of Other Languages (ESOL), reading skills, writing skills, math fundamentals, math S.P.C., algebra, communications skills, problem solving; (2) job-specific curriculum matrixes (reading, writing, math, communication and listening skills, problem solving); (3) sample company-specific curriculum and lesson, pre- and postassessments, ESOL needs assessment, manager evaluation, and student course evaluation; and (4) articles. The final evaluation report notes that the project exceeded the proposed number of worksites and participants and project objectives in the area of curriculum. (YLB)

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ED 365 810

PIMA COUNTY WORKPLACE LITERACY PARTNERSHIP

V198A30184

FINAL REPORT

MAY 1, 1992 - OCTOBER 31, 1993

REPORT PREPARED BY:

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WORKPLACE EDUCATION PROJECT

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NATIONAL WORKPLACE LITERACY PROGRAM
INFORMATION FORM

Pima County Adult Education
Workplace Education Project
Final Report
May 1, 1992 - October 31, 1993

Part 1: Program Parameters

1. Target No. to be Served: 275

4. Fed. Funds Obligated: $162,482

5. Matching Funds/ In-Kind: $84,107

6. Value Release Time: $ 41,446

2. No. Served at Each Site to Date:

Site 1. 65	Site 6. 37
Site 2. 20	Site 7. 33
Site 3. 49	Site 8. 42
Site 4. 14	Site 9. 52
Site 5. 11	Site 10. 11
	Site 11. 21

7. No. Participating in Programs Offered

Basic Skills 224
GED
ESL 131

3. Total No. Served: 355

8. Contact Hours Provided: 9478

Site 1 Hughes
Site 2 Power Convertibles
Site 3 U of A
Site 4 Park Inn
Site 5 El Rio Health Center
Site 6 CPES
Site 7 Concrete Design
Site 8 Tritronics
Site 9 Burr-Brown
Site 10 3M
Site 11 Lambda

(Contact Hours are the number of teaching hours that workers receive)

average # of weeks in training cycle = 11
average # of hours of instruction per cycle= 33
average # of hours of instruction per week = 3

Part 2: Participation Data

1. Mean Age Participants: 39

2. Sex: No. Males 152 No. Females 203

3. Race/Ethnicity: No. who are:

White 154	Am. Indian/
Black 11	Alaska Native 5
Hispanic 88	Asian/Pacific
	Islander 97

4. No. Single Head of Household: 106

5. No. Limited English Proficient: 132

Outcomes	No. Participants
a. Tested higher on basic skills	123
b. Improved communication skills	168
c. Increased productivity	
d. Improved attendance at work	
e. Increased self-esteem	297

7. Years with the company	No. Participants
Unemployed	
0-5	184
6-10	76
11-15	64
16-over	31

SITES AND NUMBER OF PARTICIPANTS SERVED

	Sites	Participants Served
Site 1	Hughes Missile Systems Company	65
Site 2	Power Convertibles	20
Site 3	The University of Arizona (Facilities Management Department)	49
Site 4	Park Inn and Breakfast Club	14
Site 5	El Rio Health Center	11
Site 6	Community Psychology and Education Services (CPES)	37
Site 7	Concrete Design Inc.	33
Site 8	Tri-Tronics, Inc.	42
Site 9	Burr-Brown Corporation	52
Site 10	3M	11
Site 11	Lambda Electronics	21

WORKPLACE LITERACY PARTICIPANTS BY WORKPLACE AND TYPE OF TRAINING

	Hughes	Power Convertibles	U of A	Park Inn	El Rio Health Ctr.	CPES	Concrete Design	Tri-Tronics	Burr-Brown	3M	Lambda	Total
Reading									8			8
Writing	8		18			37						63
Math Fundamentals	11											11
Algebra	29											29
ABE					11							11
Communication/ Listening	9		17				19		21			66
Problem Solving	8		14				14					36
ESOL		20		14				42	23	11	21	131
Total	65	20	49	14	11	37	33	42	52	11	21	355

Contact Hours by Site	
Company	Contact Hours
Hughes	881
Power Convertibles	633
University of Arizona	1228
Park Inn & Breakfast Club	416
El Rio Health Center	541
CPES	1069
Concrete Design	649
TriTronics	1643
Burr-Brown	1024
3M	733
Lambda	663
TOTAL	9480

FINAL REPORT NARRATIVE

Pima County Adult Education's (PCAE) Workplace Education Project, funded under the National Workplace Literacy Program, provided workplace education classes at eleven worksites to 355 workers. The worksites included: Hughes Missile Systems Company, Power Convertibles, the University of Arizona (Facilities Management), Park Inn and Breakfast Club, El Rio Health Center, Community Psychology and Education Services (CPES), Concrete Design Inc., Tri-Tronics Inc., Burr-Brown Corporation, 3M, and Lambda Electronics.

COMPARISON OF ACCOMPLISHMENTS TO OBJECTIVES

The following information compares actual accomplishments to the objectives contained in the approved application.

Objective 1
A minimum of 275 adults with inadequate basic skills will be recruited and trained in workplace classes; at least 50% of whom will be representatives of minority groups.

Accomplishments
Three hundred and fifty-five (355) workers were recruited and trained in on-site workplace classes, 57% of whom were representatives of minority groups.

Objective 2
A minimum of eight worksite locations, including both large and small Tucson employers, will be served.

Accomplishments
Eleven worksites, including large and small employers, were served.

Objective 3
A minimum of 27 class cycles will be completed. A "class cycle" is a class held in a worksite location for an 8-10 week time period.

Accomplishments
Twenty-seven (27) class cycles were completed. The average class cycle was 11 weeks (20-80 hours of instruction). The class cycles ranged from 2 to 3 hour classes once a week for ten weeks (20 to 30 instructional hours) to classes twice a week for 10, 15, and 20 weeks (40 to 80 instructional hours).

Objective 4

All learners will be pre- and post-tested at the beginning and end of each cycle to measure enhancement of job-specific basic skills. Qualitative and quantitative tools will be developed to measure workplace outcomes such as improved productivity, increased attendance at work, increased employee readiness for promotions, increased self-esteem, decreased error rates, and reductions in waste, turnover, lost management time, and downtime.

Accomplishments

All learners were pre-tested and those that completed (282/79%) were post-tested. Educational gains as well as gains in self-esteem were obtained. It was difficult to obtain hard data on increased productivity and attendance at work because managers didn't always respond to these questions. Although we do not have hard data on increased productivity and attendance, managers who did respond to these questions felt that participating workers were either productive and had good attendance already or they had improved in these areas. We have developed a new evaluation tool to be filled out by managers that includes increased employee readiness for promotions, decreased error rates, and reductions in waste, turnover, lost management, and downtime. The problem of managers not filling out the forms as well as the difficulty in linking improved basic skills with many of these factors remains. We are contemplating having supervisors/managers come to a meeting and talking with them in a discussion format about these issues.

Objective 5

Advisory committees will be formed at worksites that include both workers and employers in order to meet both worker and employer literacy goals.

Accomplishment

Advisory committees were formed at worksites that included both workers and employers in order to meet both worker and employer literacy goals.

Objective 6

Information about the project and materials developed will be disseminated to the Curriculum Coordination Center and the ERIC Clearinghouse. The project will be presented at one or more national or statewide conferences. The accomplishment of these objectives will be evidenced by information included in project reports and in files maintained at the project's office and available for review.

Accomplishments

Staff of Pima County Adult Education's Workplace Education Project presented at local, state, and national conferences. Linda Hellman, Project Manager co-presented at the Project Directors' Start-Up Meeting in Washington, D.C. in April, 1993 on *If I Knew Then What I Know Now*. Jane Brown, Lead Teacher, and Elaine Dow, ESOL Specialist, co-presented a workshop entitled *Teaming with Ideas: Teambuilding Activities for Workplace Education* at COABE (Commission on Adult Basic Education) in New Orleans, Louisiana in June, 1993. Elaine presented at TESOL (Teachers of English to Speakers of Other Languages) in Atlanta, Georgia, in April,

1993 on *TQM in ESL*. Jane, Elaine, and Brad Hollis, another Workplace Education Project staff member, presented a teambuilding workshop entitled *Teaming with Ideas* at the Arizona Adult Education Conference in Phoenix, Arizona, in October, 1992. Linda, Jane, and Elaine presented at the University of Arizona's Spring Conference in Tucson, Arizona, in March, 1993 on the Workplace Education Project and workplace literacy in general.

Two articles were published about the Workplace Education Project during this grant cycle. "Literacy Program Receives Federal Honors" was published in the *Arizona Daily Star* on April 12, 1993. "A Partnership in Learning" was published in the Bureau of Business Practice's *Employee Relations Bulletin* in July, 1992. The Workplace Education Project was also mentioned as a provider in the BCEL Brief *Basic Skills in the Hotel & Food Service Industries*. Copies of these articles are included in the Appendix of this Final Report.

The Workplace Education Project had a number of people visiting the program during the grant cycle. Marian Banfield from the U.S. Department of Education came recently. Others included: Kathy Lane from El Camino Community College in Torrance, California; Dr. Mary McGroarty from Northern Arizona University in Flagstaff, Arizona; and Bill Morrison from Cochise College in Douglas, Arizona.

The Project Manager and other staff members have disseminated information and materials in response to numerous requests from adult education providers, workplace education providers, and researchers. Materials that were developed in this grant cycle were disseminated at the Project Directors' Start-Up Meeting for the 1993-1994 grants in April, 1993 and at the Project Directors' Close-Out Meeting for this grant cycle in September, 1993. Through the numerous presentations, PCAE staff members have given out many handouts about various topics in workplace education. Aside from presentaions, the Workplace Education Project has sent information and materials developed in the Project to Cochise College, Douglas, Arizona; the National Clearinghouse on Literacy Education in Washington, DC; Rush Medical Center in Chicago, Illinois, Casper College in Casper, Wyoming; the Southport Institute for Policy Analysis in Washington, D.C.; the Educational Services Program in Tallahassee, Florida, Magma Copper Company in San Manuel, Arizona, and Columbia University, in New York City. Additionally, the Project Manager has spoken on the telephone to other providers and people requesting information about the Workplace Education Project. This Final Report and Appendix will be sent to the Curriculum Coordination Center and the ERIC Clearinghouse.

CURRICULUM

All curricula used in workplace education classes were developed by the staff of the Workplace Education Project. The curricula linked the goals of both the participating workers and the individual companies, making the instruction learner-centered and participatory.

During the 1991-1992 grant cycle, the instructors combined the common components of the company-specific curricula up until that point together by subject (reading, writing, math, and ESOL) and developed a generic curriculum for each content area. These curricula were used by instructors in the Workplace Education Project to customize from, rather than reinvent the wheel each time we began a class at a new company. Through dissemination, these curricula benifitted other workplace education providers as well as our own instructors. The instructors in the basic skills area also developed job-specific matrixes that linked competencies to jobs.

During this grant cycle (1992-1993), the instructors updated the already existing generic curricula and revised them when appropriate. They also added a Communication and Listening Curriculum, a Problem-Solving Curriculum, and Job-Specific Matrixes for both areas. Company-specific curricula were also developed for each individual site. Generic curricula and job-specific matrixes are included in the Appendix of this Final Report.

STAFF DEVELOPMENT

All staff involved in the Workplace Education Project received one-to-one and small group training with the Project Manager and Lead Teacher on an on-going basis. Topics covered included task analysis, assessment, curriculum writing, lesson planning, evaluation, and student support services. Teachers also met regularly to share ideas, lessons, etc. The Project Manager conducted on-going observations of classes at every workplace.
Pima County Adult Education also has an extensive in-service staff development program and staff working in this Project benefitted from both PCAE's program and the specific training offered through the Workplace Education Project.

In addition, the staff of the Workplace Education Project attended several conferences on workplace literacy, adult education, and ESOL including COABE (Commission on Adult Basic Education) in New Orleans, Louisiana, TESOL (Teachers of English to Speakers of Other Languages) in Atlanta, Georgia, AZ-TESOL in Yuma, Arizona, and the Arizona Adult Education Conference in Phoenix, Arizona. In addition, the Project Manager and the Lead Teacher are members of the local chapter of ASTD (American Society of Training and Development). They attend a monthly meeting in which one training area is demonstrated.

ADVISORY COMMITTEES

Advisory Committees were formed which included representatives from the training or human resource department of the company, managers, students, instructors, and the Project Manager . The groups met a minimum of once a cycle to discuss how the class/es were going, any problems or concerns, suggestions for improvement, ideas for future classes, etc. The advisory committees were a very useful tool for keeping the classes relevant, participatory, and learner-centered. Aside from the Advisory Committees, we conducted on-site planning meetings and task analyses at every worksite, which incorporated workers' input.

EVALUATION

The Workplace Education Project utilized Nancy Siefer as our outside evaluator. Her expertise in workplace literacy has been invaluable in guiding the Project and helping it become an exemplary program. Nancy's primary focus was quality. PCAE's Workplace Education Project worked with Nancy from the initial stages to the end of the grant cycle. Not only was the program evaluated on an on-going basis, but also each class, instructor, and student were evaluated. The four levels of evaluation which follow list who or what were evaluated in each level and by whom.

LEVELS OF EVALUATION

What/Who is to be Evaluated	Evaluator
Worker	Instructor, supervisor, self
Instructor	Workers, self, Project Manager
Course	Workers, instructors, supervisors, Project Manager, outside evaluator
Program	Workers, instructors, supervisors, Project Manager, advisory committees, outside evaluator

The Final External Evaluation Report is included with this Final Report.

ADDITIONAL INFORMATION

Linda Hellman, Project Manager of the Workplace Education Project, was the recipient of ASTD's Old Pueblo Chapter's 1992 Human Resource Development Award. Her program was cited for assisting numerous workers in basic skills and her commitment to adult education. Jane Brown, Lead Teacher, Susana Mincks, Associate Director of PCAE, and Linda Hellman presented at an ASTD monthly meeting followed by a three-hour institute on *Designer Learning: Tailoring Your Training to Meet the Learning Styles of Your Audience.* The presentaion was very highly received. Brad Hollis, the instructor at Hughes Missile Systems Company, presented the workshop *Signs of Reading Difficulty* for Hughes technical trainers to aid them in diagnosis and referral of poor readers.

In addition to our federal grant, the Workplace Education Project provided Skills Enhancement Classes to Arizona Department of Economic Security (DES) workers. This is an innovative project because it involves a partnership between two governmental agencies. In 1992-1993, PCAE trained 123 DES employees, 96 in reading and writing and 27 in math/problem solving through a special grant.

OUTCOMES

The following pages give statistics on the number and characteristics of project participants who did and did not complete the program as well as the measurable learning gains. In this report, we have identified "completers" as the workers who completed two-thirds or more of the classroom time offered in each cycle.

Our statistics indicate that 282 participants (79%) out of 355 participants served completed project activities and 73 participants (21%) did not. Many of our "non-completers" were laid off while they were enrolled in workplace education classes. Since our goal was to train 275 workers, we are pleased that more workers than were targetted in the grant completed the programs at their worksites.

PCAE instructors pre-tested every participant at every location when he/she entered the workplace education class. The instructors post-tested at the end of each cycle, which ranged from 10-20 weeks in length. A total of 123 workers tested higher in basic skills and another 168 improved their communication skills. The 123 number was derived from workers that participated in the reading, writing, math, ABE, and problem-solving classes. The 168 number was derived from workers that attended the English to speakers of other languages (ESOL) classes and workers that took a class in communications. Two hundred and seventy completers and 21 non-completers had learning gains documented by pre-/post-test results or determined by teachers, supervisors, or workers themselves. All 282 completers and 21 non-completers documented increases in self-esteem.

In ESOL, PCAE used teacher-designed pre- and post-assessments which the instructors developed according to the requirements of each workplace. The tests were scored on a holistic scale of 0-6:

0 - pre-beginning
1 and 2 - beginning
3 and 4 - intermediate
5 and 6 - advanced

The test components included speaking, listening, reading, and writing. Students were scored on individual components and also received an average overall score. For example, a student might begin the class with an average overall score of 1.3 and post-test at 2.7. A sample ESOL pre- and post-test is included in the Appendix of this Final Report.

Several types of assessments were used in the basic skills areas, both standarized and teacher-made. For the math classes, the instructors either developed their own tests or used ones that were taken from the textbooks used in the class. In reading, the instructor created a reading assessment utilizing company material. The cloze approach was used on a passage taken from the employee handbook. Different selections were used for the pre- and post-tests.

In the writing classes, a student writing sample was taken. The writing samples were scored holistically. The Workplace Education Project's Holistic Scoring Guidelines are included in the Appendix of this Final Report. We also tested students using the Language Mechanics

and Language Expression portions of the TABE (Tests of Adult Basic Education), Level A, Forms 5 & 6. Although the TABE uses grade levels to document results, we provided students and employers the results in a percentage format.

For communication skills classes, students were given a teacher-made pre- and post-assessment which focused on active listening; passive, assertive, and aggressive communication styles; and communication strategies. Students were also given two assessments, the SELF inventory and True Colors, to determine individual communication styles. These were not pre/post-test asessments.

In problem-solving classes, the pre-assessment tool was the Cornell Critical Thinking Test, Level X; the Level Z was used for the post-assessment. This assessment measured participants' abilities in logical, deductive and inductive reasoning, identifications of assumptions and predictions, and creative-thinking skills. A teacher-made assessment was also used to measure participants' understanding of flow charts, Ishikawa diagrams, check sheets and Pareto charts. Each student received an individual item analysis which pinpointed areas of strength and weakness.

After each class at every worksite, the Project Manager sent a letter to the company summarizing what happened during the class cycle, including a compilation of the evaluation results from both the class participants and the managers and the results of the pre/post-test scores. When the employers received the results of the pre- and post-test scores, the workers' names were not used and the results were reported in composite form. Students' learning gains from pre- to post-test are one indicator of how successful the classes have been and are a valuable marketing tool for continuing the program in the future.

NATIONAL WORKPLACE LITERACY PROGRAM
INFORMATION FORM

Completers
Pima County Adult Education
Workplace Education Project
May 1, 1992 - October 31, 1993

Part 1: Program Parameters

1. Target No. to be Served: 275
   a. Total No. Served: 355
   b. No. of Completers: 282

2. No. Served at Each Site to Date:

Site 1.	/42	Site 6.	/34
Site 2.	/15	Site 7.	/32
Site 3.	/39	Site 8.	/34
Site 4.	/11	Site 9.	/36
Site 5.	/11	Site 10.	/10
		Site 11.	/18

3. Total No. Served: 282

4. Fed. Funds Obligated: _____

5. Matching Funds/ In-Kind: _____

6. Value Release Time: _____

7. No. Participating in Programs Offered

Basic Skills	177
GED	_____
ESL	105
	_____

8. Contact Hours Provided: _____

Site 1	Hughes	Site 6	CPES
Site 2	Power Convertible	Site 7	Concrete Design
Site 3	U of A	Site 8	Tritronics
Site 4	Park Inn	Site 9	Burr-Brown
Site 5	El Rio Health Center	Site 10	3M
		Site 11	Lambda

Part 2: Participation Data

1. Mean Age Participants: 40

2. Sex: No. Males 126 No. Females 156

3. Race/Ethnicity: No. who are:

White	124	Am. Indian/	
Black	10	Alaska Native	4
Hispanic	70	Asian/Pacific	
		Islander	74

4. No. Single Head of Household: 78

5. No. Limited English Proficient: 105

Outcomes	No. Participants
a. Tested higher on basic skills	119
b. Improved communication skills	151
c. Increased productivity	____
d. Improved attendance at work	____
e. Increased self-esteem	282

7. Years with the company	No. Participants
Unemployed	_____
0-5	150
6-10	57
11-15	46
16-over	29

NATIONAL WORKPLACE LITERACY PROGRAM
INFORMATION FORM

Non-Completers
Pima County Adult Education
Workplace Education Project
May 1, 1992 - October 31, 1993

Part 1: Program Parameters

1. Target No. to be Served: 275
   a. Total No. Served: 355
   b. No. of Non-Completers: 73

2. No. Served at Each Site to Date:

Site 1.	/23	Site 6.	/3
Site 2.	/5	Site 7.	/1
Site 3.	/10	Site 8.	/8
Site 4.	/3	Site 9.	/16
Site 5.	/0	Site 10.	/1
		Site 11.	/3

3. Total No. Served: 73

4. Fed. Funds Obligated: _____

5. Matching Funds/ In-Kind: _____

6. Value Release Time: _____

7. No. Participating in Programs Offered

Basic Skills	47
GED	_____
ESL	26

8. Contact Hours Provided: _____

Site	1	Hughes	Site	6 CPES
Site	2	Power Convertible	Site	7 Concrete Design
Site	3	U of A	Site	8 Tritronics
Site	4	Park Inn	Site	9 Burr-Brown
Site	5	El Rio Health Center	Site	10 3M
			Site	11 Lambda

Part 2: Participation Data

1. Mean Age Participants: 39

2. Sex: No. Males 26 No. Females 47

3. Race/Ethnicity: No. who are:

White	30	Am. Indian/ Alaska Native	1
Black	1	Asian/Pacific Islander	23
Hispanic	18		

4. No. Single Head of Household: 28

5. No. Limited English Proficient: 26

Outcomes	No. Participants
a. Tested higher on basic skills	4
b. Improved communication skills	17
c. Increased productivity	____
d. Improved attendance at work	____
e. Increased self-esteem	15

7. Years with the company	No. Participants
Unemployed	_____
0-5	34
6-10	19
11-15	18
16-over	2

APPENDIX

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
ESOL CURRICULUM
TOPICS

PERSONAL INFORMATION

SOCIALIZING AT WORK

TOOLS, SUPPLIES, EQUIPMENT AND MATERIALS

LEARNING, DOING AND TEACHING THE JOB

COMPANY POLICY
(BENEFITS, SICK AND VACATION LEAVE, PAY, ACCIDENTS, AND FORMS)

HEALTH AND SAFETY

PERFORMANCE REVIEW (EVALUATIONS)

WORKING IN TEAMS

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
ESOL CURRICULUM

TOPICS	TASKS	FUNCTIONS
Personal Information	identify self and some co-workers introduce self to co-workers	asking for + giving information expressing wants, desires, needs introducing, greeting, taking leave
Socializing at Work	ask about co-workers' families and activities extend, accept, decline invitations greet co-workers, boss, and other worker acquaintances	describing events/problems/ situations/processes asking + giving opinion introducing, greeting, taking leave making small talk, demonstrating an awareness of appropriate/inappropriate questions
Tools, Supplies, Equipment and Materials	complete material request forms direct someone to a place explain the danger of certain hazardous materials explain functions of tools and equipment explain company clothing requirements identify and describe tools or supplies required for a task list all supplies and materials needed for a task request tools and supplies	asking for + giving directions/ instructions/information/ reasons/ permission filling out forms informing itemizing
Learning, Doing and Teaching the Job	ask for interpretation of charts, graphs and diagrams describe a procedure just completed describe anomalies in a common procedure describe job/duties explain a mistake explain work tolerances give a message to another worker look up specifications for a particular job make suggestion for improvement of work process plot data on a graph read, interpret and explain charts, graphs and diagrams request help to complete a task respond to criticism from a supervisor verify a new process or procedure write a short note describing a task left incomplete	admitting - denying suggesting, recommending + asking for advice asking for + giving directions/ instructions/information/ reasons/permission asking for + giving opinion asking for + offering + accepting help, things checking + indicating understanding clarifying, correcting, rephrasing, summarizing, informing repeating + asking for clarification, correction, repetition describing events/problems/ situations/processes expressing certainty/doubt/ suspicion

Company Policy (sick & vacation leave and other benefits, pay, accidents, forms)	ask about and explain changes in paycheck deductions call in sick, late or absent cash, deposit, write checks demonstrate and explain company safety regulations and procedures describe preferences of hours, shift, assignment explain benefits explain company attendance policy explain company clothing requirements explain company handbook explain company leave policy fill out application form fill out health form fill out time card fill out W2 form read and explain payroll deductions from pay stub verify accuracy of paycheck	asking for + giving directions/ instructions/information/ reasons/permission asking for + giving opinion clarifying, correcting, rephrasing, summarizing, repeating + asking for clarification, correction, repetition expressing likes - dislikes/ preferences expressing wants, desires, needs informing making + accepting excuses mediating, negotiating, conceding, compromising reminding
Health and Safety	read and explain hazardous warning labels report an accident respond to written and oral warnings of danger demonstrate and explain company safety regulations and procedures warn a co-worker of imminent danger	cautioning describing events/problems/ situations/processes interrupting reminding
Performance Review (Evaluations)	ask about opportunities/ requirements for promotion explain company evaluation procedures request feedback from supervisor on job performance respond to criticism/praise from a supervisor respond to evaluator's comments	hesitating, stalling mediating, negotiating, conceding, compromising soliciting feedback & opinions
Working in Teams	ask for clarification, repetition describe a procedure just completed express agreement/disagreement identify self and some co-workers indicate understanding of proceedings make suggestion for improvement of work process	suggesting, recommending + asking for advice agreeing - disagreeing expressing likes - dislikes/ preferences interrupting mediating, negotiating, conceding, compromising

Not all tasks and functions are taught at every worksite nor for every job category. The ESOL teacher selects from these items to design a curriculum appropriate to each class.

It is understood that each task and each worksite requires extensive yet possibly distinct vocabulary. As dictated by the worksite, tasks may include reading, writing, or speaking activities.

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC READING SKILLS CURRICULUM

1.0 MAIN IDEA
- 1.1 Identifying the Main Idea (stated)
- 1.2 Identifying the Main Idea (unstated)

2.0 GETTING THE FACTS
- 2.1 Identifying the Facts
- 2.2 Finding an Implied Fact
- 2.3 Distinguishing Between Fact and Opinion
- 2.4 Combining Facts
- 2.5 Evaluating Factual Data

3.0 DRAWING CONCLUSIONS
- 3.1 Identifying a Conclusion
- 3.2 Evaluating a Conclusion
- 3.3 Identifying Conclusions and Generalizations from a Paragraph

4.0 CAUSE AND EFFECT
- 4.1 Identifying Literal Cause and Effect
- 4.2 Identifying Implied Cause and Effect
- 4.3 Evaluating Cause and Effect Statements

5.0 DETAILS
- 5.1 Finding Details in a Paragraph
- 5.2 Identifying Supporting Details in a Paragraph
- 5.3 Identifying Nonsupporting Details in a Paragraph

6.0 SEQUENCING
- 6.1 Determining Ordered Events in a Paragraph
- 6.2 Identifying "Sequencing" Words

7.0 DIRECTIONS
- 7.1 Following Literal Written Directions
- 7.2 Determining Direction Sequence

8.0 UTILIZING INFORMATION
- 8.1 Utilizing Information from Pictures, Maps and Signs
- 8.2 Utilizing Information from Diagrams, Tables, Charts, Graphs and Schedules
- 8.3 Utilizing Information from Indexes, Tables of Contents or the Dictionary

9.0 COMPARISON AND CONTRAST

10.0 SUMMARIZING AND PARAPHRASING
- 10.1 Summarizing a Written Interview
- 10.2 Paraphrasing a Narrative

11.0 STRUCTURE
- 11.1 Recognizing Structural Elements in a Reading Selection
- 11.2 Analyzing Structural Elements in a Reading Selection

12.0 CRITICAL THINKING SKILLS
- 12.1 Identifying Author's Writing Techniques
- 12.2 Identifying Author's Purpose
- 12.3 Analyzing Organizational Patterns
- 12.4 Analyzing Organizational Relationships

13.0 SKIMMING AND SCANNING

14.0 VOCABULARY
- 14.1 Recognizing Root Word
- 14.2 Recognizing Suffixes
- 14.3 Recognizing Prefixes
- 14.4 Understanding Compound Words
- 14.5 Antonyms
- 14.6 Synonyms
- 14.7 Homonyms
- 14.8 Workplace Specific Vocabulary

15.0 APPLIED READING SKILLS
- 15.1 Company Newsletters
- 15.2 Safety Regulations
- 15.3 Employee Handbook
- 15.4 Training Manuals
- 15.5 Specifications
- 15.6 Company Forms
- 15.7 Company Benefits Package
- 15.8 State and/or Federal Regulations

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC WRITING SKILLS CURRICULUM

1.0 SENTENCE STRUCTURE
- 1 .1 Subject/Verb
- 1. 2 Fragments/Run-ons
- 1. 3 Simple/Compound/Complex Sentences
- 1. 4 Declarative/Imperative/Interrogative/Exclamatory Sentences

2.0 PARTS OF SPEECH
- 2. 1 Nouns
  - 2.11 Compound Nouns
  - 2.12 Classes of Nouns
    - a. Common
    - b. Proper
    - c. Concrete
    - d. Abstract
    - e. Collective
    - f. Gerunds (Verbal Nouns)
  - 2.13 Properties of Nouns
    - a. Person
    - b. Number
    - c. Gender
    - d. Case
  - 2.14 Uses of Nouns
    - a. Subject of Sentence or Clause
    - b. Predicate Nominative
    - c. Direct Object of a Verb
    - d. Indirect Object of a Verb
    - e. Object of a Preposition
    - f. Appositive
- 2. 2 Pronouns
  - 2.21 Classes of Pronouns
    - a. Personal Pronouns
    - b. Compound Personal Pronouns
    - c. Indefinite Pronouns
    - d. Demonstrative Pronouns
    - e. Interrogative Pronouns
    - f. Relative Pronouns
  - 2.22 Properties of Pronouns
    - a. Person
    - b. Number
    - c. Gender

2. 3 Verbs
- 2.31 Verb
- 2.32 Verb Phrase
- 2.33 Classes of Verbs
  - a. Transitive Verbs
  - b. Intransitive Verbs
- 2.34 Tenses of Verbs
  - a. Present Tense
  - b. Past Tense
  - c. Future Tense
  - d. Present Perfect Tense
  - e. Past Perfect Tense
  - f. Future Perfect Tense
- 2.35 Voice of Verbs
  - a. Active Voice
  - b. Passive Voice
- 2.36 Subject/Verb Agreement

2. 4 Adjectives
- 2.41 Classes of Adjectives
  - a. Descriptive Adjectives
  - b. Demonstrative Adjectives
  - c. Limiting Adjectives
  - d. Proper Adjectives
  - e. Compound Adjectives
- 2.42 Degree Forms of Adjectives
  - a. Positive
  - b. Comparative
  - c. Superlative
- 2.43 Absolute Adjectives

2.'5 Adverbs
- 2.51 Classes of Adverbs
  - a. Manner
  - b. Place
  - c. Time
  - d. Frequency
  - e. Reason
- 2.52 Degree Forms of Adverbs
  - a. Positive
  - b. Comparative
  - c. Superlative

2. 6 Articles

2. 7 Prepositions

2. 8 Conjunctions
  - a. Coordinating Conjunctions
  - b. Correlative Conjunctions
  - c. Conjunctive Adverbs
  - d. Subordinating Conjunctions

2 .9 Interjections

3.0 PHRASES and CLAUSES
- 3. 1 Verb Phrases
- 3. 2 Infinitive Phrases
- 3. 3 Prepositional Phrases
- 3. 4 Gerund Phrases
- 3. 5 Participial Phrases
- 3. 6 Dependent Clauses
- 3. 7 Adjective Clauses
- 3. 8 Adverbial Clauses
- 3. 9 Noun Clauses
- 3.10 Independent Clauses

4.0 PARALLEL CONSTRUCTION

5.0 PUNCTUATION and CAPITAL LETTERS
- 5. 1 Ending Punctuation
- 5. 2 Commas
- 5. 3 Quotation Marks
- 5. 4 Colons
- 5. 5 Semi-Colons
- 5. 6 Hyphens

6.0 PROOFREADING/EDITING
- 6. 1 Correcting Shift in Time
- 6. 2 Correcting Shift in Person
- 6. 3 Correcting Wordiness
- 6. 4 Avoiding Cliches
- 6. 5 Correcting Misplaced Modifiers
- 6. 6 Correcting Plural/Possessive Errors
- 6. 7 Correcting Letters, Memos, Reports
- 6. 8 Expressing Numbers Correctly
- 6. 9 Editing Rough Drafts
- 6.10 Editing for Completeness
- 6.11 Editing for Cohesiveness
- 6.12 Editing for Conciseness
- 6.13 Editing for Clearness
- 6.14 Editing for Courteousness
- 6.15 Editing Business Letters
- 6.16 Editing Business Memos

7.0 WRITING ACTIVITIES
- 7. 1 Writing Narrative Paragraphs
- 7. 2 Writing Persuasive Paragraphs
- 7. 3 Writing Descriptive Paragraphs
- 7. 4 Writing Expository Paragraphs
- 7. 5 Writing Incident Reports
- 7. 6 Resume Writing

7. 7 Business Letters
- 7.71 Request letters
- 7.72 Acknowledgments
- 7.73 Sales letters
- 7.74 Claim and Adjustment letters
- 7.75 Public Relations letters
- 7.76 Goodwill letters
- 7.77 Appreciation letters

7. 8 Memo Writing
7. 9 Report Writing
7.10 Journal Writing
7.11 Free Writing
7.12 Goal Setting
7.13 Performance Appraisals
7.14 Minutes of a Meeting

8.0 SPELLING
8. 1 List of Frequently Misspelled Words
8. 2 Special Consonant Sounds: "s", "sh", "ch", "zh", "j", "f", "k"
8. 3 Double Consonants
8. 4 Silent Consonants
8. 5 Silent Vowels
8. 6 Spelling Errors Related to Pronunciation
8. 7 Reduced Vowel Roots: "a", "e", "er", "i", "o", "or", "u"
8. 8 Reduced Vowel Suffixes: "ent/ence", "ant/ance", "or/ar", "able/ible", "le/el/al/", "ary/ery/ory", ain/on/om", "acy/asy"
8. 9 Rule for Doubling Final Consonants
8.10 Individual List of Misspelled Words
8.11 Words Often Confused
8.12 Words That Sound Alike
8.13 Possessives
8.14 Contractions

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC MATH FUNDAMENTALS CURRICULUM

1.0 WHOLE NUMBERS SKILLS
- 1. 1 Place Value
- 1. 2 Addition Computation
- 1. 3 Addition Applications
- 1. 4 Subtraction Computation
- 1. 5 Subtraction Applications
- 1. 6 Multiplication Computation
- 1. 7 Multiplication Applications
- 1. 8 Division Computation
- 1. 9 Division Applications
- 1.10 Averages

2.0 FRACTION SKILLS
- 2. 1 Introduction to Fractions
  - a. Numerator
  - b. Denominator
  - c. Proper Fractions
  - d. Improper Fractions
  - e. Reducing Fractions
  - f. Comparing Fractions
- 2. 2 Addition of Fractions Computation
- 2. 3 Addition of Fractions Applications
- 2. 4 Subtraction of Fractions Computation
- 2. 5 Subtraction of Fractions Applications
- 2. 6 Multiplication of Fractions Computation
- 2. 7 Multiplication of Fractions Applications
- 2. 8 Division of Fractions Computation
- 2. 9 Division of Fractions Applications

3.0 DECIMAL SKILLS
- 3. 1 Reading Decimals
- 3. 2 Writing Decimals
- 3. 3 Comparing Decimals
- 3. 4 Addition of Decimals Computations
- 3. 5 Addition of Decimals Applications
- 3. 6 Subtraction of Decimals Computations
- 3. 7 Subtraction of Decimals Applications
- 3. 8 Multiplication of Decimals Computations
- 3. 9 Multiplication of Decimals Applications
- 3.10 Division of Decimals Computation
- 3.11 Division of Decimals Applications

4.0 PERCENT SKILLS
- 4.1 Finding a Percent of a Number
- 4.2 Finding Percents Applications
- 4.3 Finding a Number When a Percent is Given
- 4.4 Determining Percent Increase
- 4.5 Determining Percent Decrease
- 4.6 Using Percents: The Percent Circle

5.0 MATH INTEGRATION
- 5.1 Changing Fractions to Decimals
- 5.2 Changing Fractions to Percents
- 5.3 Changing Decimals to Fractions
- 5.4 Changing Decimals to Percents
- 5.5 Changing Percents to Decimals
- 5.6 Changing Percents to Fractions
- 5.7 Decimal Percents
- 5.8 Fractional Percents

6.0 APPROXIMATION
- 6.1 Using approximation in Problem Solving
- 6.2 Using approximation in Word Problems

7.0 MEASUREMENT SKILLS
- 7.1 English Measurement
- 7.2 Metric Measurement

8.0 INTEREST FORMULA
- 8.1 Interest
- 8.2 Definition of Rate
- 8.3 Definition of Time
- 8.4 Interest Earned
- 8.5 Interest Paid
- 8.6 Finding the Total Owed
- 8.7 Finding the Balance Owed
- 8.8 Computing Interest for Part of the Year

9.0 DATA ANALYSIS SKILLS
- 9.1 Finding the Mean
- 9.2 Finding the Median
- 9.3 Finding the Range
- 9.4 Finding the Ratio
- 9.5 Displaying Numerical Data

10.0 GRAPH SKILLS
- 10.1 Pictograph
- 10.2 Bar Graph
- 10.3 Circle Graph
- 10.4 Line Graph

11.0 PROBABILITY

12.0 MATHEMATICAL FORMULAS
- 12.1 Ration
- 12.2 Proportion
- 12.3 Area
  - a. Computing the area of a square
  - b. Computing the area of a rectangle
  - c. Computing the area of a parallelogram
  - d. Computing the area of a triangle
  - e. Computing the area of a circle
- 12.4 Perimeter
  - a. Computing the area of a square
  - b. Computing the area of a rectangle
  - c. Computing the area of a triangle
  - d. Circumference of a circle
- 12.5 Volume
  - a. Computing the volume of a cube
  - b. Computing the volume of a rectangle
  - c. Computing the volume of a container
  - d. Computing the volume of a cylinder

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
MATH FOR GENERIC S.P.C. CURRICULUM

1.0 DATA COLLECTION
- 1.1 Types of Data
  - a. Variable Data
  - b. Attribute Data
- 1.2 Tally Charts and Check Sheets

2.0 MATH SKILLS FOR S.P.C.
- 2.1 Using A Calculator
- 2.2 Finding The Mean
- 2.3 Finding The Median
- 2.4 Finding The Range
- 2.5 Rounding
- 2.6 Finding Percent

3.0 GRAPHING SKILLS FOR S.P.C.
- 3.1 Principles of Graphing
  - a. Reading Axes
  - b. Plotting Points
  - c. Interpolation
  - d. Control Limits
- 3.2 Variable Control Chart
- 3.3 Attribute Control Chart
- 3.4 Other Chart Types

4.0 S.P.C. PROBLEM SOLVING
- 4.1 In Control And Out Of Control
- 4.2 Interpreting Control Chart Patterns
- 4.3 Histograms
- 4.4 Pareto Analysis
  - a. Benefits
  - b. Procedure

5.0 APPLICATION

Specific applications of these principles will depend upon the idiosyncratic programs and materials of each company.

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC ALGEBRA CURRICULUM

1.0 ALGEBRAIC LANGUAGE
- 1.1 Using Letters for Numbers
- 1.2 Showing Operations in Equations
  - a. Adding
  - b. Subtracting
  - c. Multplying
  - d. Dividing
- 1.3 Exponents
  - a. What are Exponents?
  - b. Using Exponents
- 1.4 Square Roots
  - a. What are Square Roots?
  - b. Calculating an Approximate Square Root
- 1.5 Using Parentheses
- 1.6 Order of Operations
- 1.7 Formulas
  - a. Reading Formulas
  - b. Applying Formulas
- 1.8 Applications
  - a. F to C Formula
  - b. Find Area in English Units
  - c. Find Area in Metric Units
  - d. Apply Simple Interest Formula
  - e. Apply Compound Interest Formula
  - f. Change English to Metric Units
  - g. Change Metric to English Units
  - h. Find Circumference & Perimeter in English Units
  - i. Find Circumference & Perimeter in Metric Units

2.0 SIGNED NUMBERS
- 2.1 Number Line
- 2.2 Ordering Signed Numbers
- 2.3 Add Signed Numbers
- 2.4 Subtract Signed Numbers
- 2.5 Multiply Signed Numbers
- 2.6 Divide Signed Numbers
- 2.7 Applications
  - a. Reading a Digital Scale with Signed Numbers
  - b. Reading an Analog Scale with Signed Numbers
  - c. Finding the Mean with Signed Numbers
  - d. Finding the Median with Signed Numbers
  - e. Finding the Range with Signed Numbers

3.0 SOLVING EQUATIONS WITH 1 UNKNOWN
- 3.1 What is an equation?
- 3.2 Solve by Subtraction
- 3.3 Solve by Addition
- 3.4 Solve by Division
- 3.5 Solve by Multiplication
- 3.6 Solve Fractional Equation
- 3.7 Solve by 2 Steps
- 3.8 Solve by Collecting Terms
  - a. Collecting Terms on 1 Side
  - b. Collecting Terms on Both Sides
- 3.9 Solve Equations with Parentheses
- 3.10 Applications
  - a. Assigning Variables to Real Problems
  - b. Setting Up an Equation for Real Problems
  - c. Rate of Work Problems
  - d. Mixture Problems with Chemicals

4.0 RATIO AND PROPORTION
- 4.1 What is Ratio?
- 4.2 Setting Up and Reducing Ratio
- 4.3 What is Proportion?
- 4.4 Setting Up a Proportion
- 4.5 Solving a Proportion Problem
- 4.6 Applications
  - a. Mixing Paint
  - b. Making Medicinal Solutions
  - c. Making Chemical Solutions
  - d. Mixing Cement

5.0 SOLVING EQUATIONS WITH 2 UNKNOWNS
- 5.1 Rearranging Equations
- 5.2 Substituting to Solve

6.0 POLYNOMIALS
- 6.1 Naming Polynomials
  - a. Coefficients, Unknowns, Terms
- 6.2 Recognizing Like Terms
- 6.3 Adding & Subtracting Like Terms
- 6.4 Multiplying & Dividing Like Terms
- 6.5 Exponents in Polyunomials
  - a. Multiplying Exponents
  - b. Divding Exponents

7.0 GRAPHING

- 7.1 What are Rectangular Coordinates?
- 7.2 Writing Coordinates as an Ordered Pair
- 7.3 Plotting Coordinates on Cartesian Plane
- 7.4 Plot the Equation of a Line
- 7.5 Find the X and Y Intercepts of a Line
- 7.6 Slope
  - a. Understanding Slope
  - b. Computing Slope
- 7.7 Graphing Non-Linear Equations
- 7.8 Applications
  - a. Graph Production Data
  - b. Find Distance Between 2 Points

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC COMMUNICATION SKILLS CURRICULUM

1.0 COMMUNICATION STYLE
- 1.1 How to Recognize and Manage the Image You Communicate
- 1.2 Verbal Components of Behavior
  - 1.21 Non-Assertive
  - 1.22 Assertive
  - 1.23 Aggressive
- 1.3 Nonverbal Components of Behavior
  - 1.31 Non-Assertive
  - 1.32 Assertive
  - 1.33 Aggressive

2.0 HOW TO COMMUNICATE THE MESSAGE YOU WANT
- 2.1 Negative
  - 2.11 Facial Expression
    - a. Tensing/wrinkling forehead
    - b. Pursed, tight-lipped mouth
    - c. Swallowing repeatedly
    - d. Insincere/inappropriate smile
    - e. Wetting lips
  - 2.12 Eye Contact
    - a. Staring
    - b. Blinking rapidly/squinting
    - c. Avoiding contact
    - d. Shifting head/eyes excessively
  - 2.13 Gestures and Posture
    - a. Covering mouth when speaking
    - b. Scratching head, rubbing eyes/neck
    - c. Playing with jewelry/clothing
    - d. Wandering, pacing, freezing
    - e. Preening
    - f. Crossing arms/angling head
    - g. Hostile stance
    - h. Looking down on someone
  - 2.14 Other
    - a. Nervous laugh
    - b. Irritating tone
    - c. Mumbling
- 2.2 Positive
  - 2.21 Facial Expression
  - 2.22 Eye Contact
  - 2.23 Gestures and Posture
  - 2.24 Other

3.0 HOW TO DEAL WITH DIFFICULT PEOPLE AND SITUATIONS

- 3.1 Identifying types of difficult people
  - 3.11 The bull
    - a. Identifying the behavior
    - b. Understanding the Bull
    - c. Coping with Bulls
  - 3.12 The Fox
    - a. Identifying the behavior
    - b. Understanding the Fox
    - c. Coping with the Fox
  - 3.13 The Time Bomb
    - a. Identifying the behavior
    - b. Understanding the Time Bomb
    - c. Coping with the Time Bomb
  - 3.14 The Whiner
    - a. Identifying the behavior
    - b. Understanding the Whiner
    - c. Coping with the Whiner
  - 3.15 The Stone Wall
    - a. Identifying the behavior
    - b. Understanding the Stone Wall
    - c. Coping with the Stone Wall
  - 3.16 The Ultra-Agreeable
    - a. Identifying the behavior
    - b. Understanding the Ultra-Agreeable
    - c. Coping with the Ultra-Agreeable
  - 3.17 The Negativist
    - a. Identifying the behavior
    - b. Understanding the Negativist
    - c. Coping with Negativist
  - 3.18 The Know-It-All Experts
    - a. Identifying the behavior
    - b. Understanding the Know-It-All
    - c. Coping with the Know-It-All
  - 3.19 The Bumps-On-A-Log
    - a. Identifying the behavior
    - b. Understanding the Bumps-On-A-Log
    - c. Coping with the Bumps-On-A-Log
- 3.2 Conflict Resolution
  - 3.21 Steps for problem-solving
    - a. Treat the other person with respect
    - b. Identify the problem
    - c. Describe the problem...briefly and accurately
    - d. Confirm that you were heard and understood
    - e. Solicit others' needs
    - f. Check understanding of others' needs

h. Negotiate a solution
i. Follow up on solution

3.22 Conquer the fear of conflict

3.3 Techniques for Handling Negative Behaviors

3.31 Broken Record: Calm repetition--saying what you want over and over gain--will eventually get through.

3.32 Fogging: Teaches acceptance of manipulative criticism by calmly cknowledging to your critic that there may be some truth in what is said, et allows you to remain your own judge of what you do.

3.33 Negative Assertion: A skill that teaches acceptance of your errors and aults (without having to apologize) by strongly and sympathetically greeing with hostile or constructive criticism of your negative qualities.

3.34 Negative Inquiry: A method of desensitizing you to criticism from eople you care about so you can listen to what they tell you, extinguishrepetitive and manipulative criticism from these people and reduce theuse of right-and-wrong structure.

3.35 Limit-Setting: Involves teaching another person how you expect to be reated (this includes teaching others how to give you negative feedback while defusing their anger and resentment)--the method is to disagree with the comment and make a self-affirmative statement.

3.4 Handling Criticism or Putdowns

3.5 Defusing the Explosive Nature of Tense Confrontations

4.0 COMMUNICATION SKILLS THAT MOTIVATE, INFLUENCE AND GAIN OTHERS' COOPERATION

4.1 The Universal Law of Negotiation
How to start out on equal (or better) footing

4.2 Strategies That Will Make You a More Powerful Negotiator

4.21 Assess the organizational climate

4.22 Identify the players

4.23 Develop and nurture a "win-win" attitude

4.24 Give permission to disagree

4.25 Identify issue as joint problem

4.26 Listen

4.27 Acknowledge emotions, but focus on facts

4.28 Explore all solutions

4.29 Reaffirm positive feelings

4.3 Saying It With Style--A Concise Method of Persuasion

5.0 AN IMPORTANT COMMUNICATION SKILL--LISTENING

5.1 Attending-the First Step to Listening Effectively

5.11 What it is:

5.12 What it involves:

a. Posture of involvement
b. Appropriate body movements
c. Eye contact
d. Non-distracting environment

5.2 Following Skills--Focusing on the Speaker
- 5.21 Door-openers to get the other person to speak
  - a. Comment on speaker's body language
  - b. Invite them to talk
- 5.22 Don't interrupt--even to offer encouragement
- 5.23 Ask few, if any, questions
- 5.24 Be attentively silent

5.3 Reflective Listening and Responding--the Five Skills
- 5.31 Paraphrasing
- 5.32 Reflecting feelings--mirroring in words the emotions communicated
  - a. Improving your capacity to "hear" feelings
  - b. Listen for "feeling words
- 5.33 Reflecting meanings
- 5.34 Summarize
- 5.35 Anticipate

6.0 COMMUNICATION SKILLS THAT SIGNAL YOU'RE TO BE TAKEN SERIOUSLY

6.1 How to Present Your Ideas "Up the Ladder"
- 6.11 Key work value of the boss
- 6.12 Match your request/recommendation to the boss's work value
- 6.13 Adapt to your boss's communication style
- 6.14 Share expectations

6.2 Steps to Firmly Position Yourself on the Management Team

6.3 How to Clear Your Path of the Most Common Obstacles to Getting Your Point Across
- 6.31 Communication roadblocks
  - a. Judging
  - b. Sending solutions
  - c. Avoiding others' concerns
- 6.32 How these roadblocks hinder communication
  - a. Diminish self-esteem
  - b. Trigger defensiveness, resistance and resentment
- 6.33 Overcome the obstacles
  - a. Be aware of roadblocks
  - b. Stay focused
  - c. Be assertive

6.4 Getting an Adversary to See Your Point of View

6.5 The Communication Style That Positions You as Member of the Team

6.6 The Informal Channels of Information

6.7 Don't Ignore Gossip...or Pass It On
- 6.71 The value of gossip
- 6.72 Know the source
- 6.73 Your reaction
- 6.74 Use gossip to your advantage

6.8 The Power Potential of the Telephone

6.9 Getting Credit--Six Ways to Subtly Toot Your Horn

7.0 THE PAYOFFS OF POWERFUL COMMUNICATION SKILLS
- 7.1 More Authoratative and Professional Image
- 7.2 Improved Self-Confidence and Increased Self-Esteem
- 7.3 Better Relationships
- 7.4 Less Stress

8.0 SELF INVENTORY

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
GENERIC PROBLEM-SOLVING CURRICULUM

1.0 STRUCTURED PROBLEM-SOLVING TOOLS

- 1.1 Ishikawa Diagram
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the Ishikawa in group problem-solving situations
- 1.2 Check Sheets
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the check sheet in group problem-solving situations
- 1.3 Pareto Diagrams
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the pareto diagram in group problem-solving situations
- 1.4 Histogram Diagram
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the histogram in group problem-solving situations
- 1.5 Scattergram Diagram
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the scattergram in group problem-solving situations
- 1.6 Control Chart
  - a. Definition
  - b. Usage
  - c. Examples
  - d. Guided practice
  - e. Utilizing the control chart in group problem-solving situations
- 1.7 Flowcharting
  - a. Definition
  - b. Usage
  - c. Flowchart symbols
  - d. Examples

e. Guided practice
f. Utilizing the flowchart in the group problem-solving situations

1.8 Problem-Solving Steps
a. Identifying and selecting the problem
b. Analyzing the problem
c. Generating potential solutions
d. Selecting and planning solutions
e. Implementing solutions
f. Evaluating the solution

1.9 Problem-Solving Techniques
a. Brainstorming
b. Nominal Group Technique

2.0 CREATIVE PROBLEM SOLVING

2.1 Mental Blocks
a. The right answer
b. That's not logical
c. Follow the rules
d. Be practical
e. Play is frivolous
f. Not my area
g. Avoid ambiguity
h. To err is wrong
i. I'm not creative

2.2 Creative Techniques
a. Look for the second right answer
b. Generate a lot of ideas
c. Change your question
d. Soft and Hard Thinking
e. Metaphorical thinking patterns
f. Patterns
g. Challenging the rules
h. What If
i. Imagine how others would do it
j. The stepping stone
k. Cross-fertilization
l. Be an employer
m. Thinking ambiguously
n. Random Information
o. Groupthink
p. Reverse your viewpoint
q. A different logic
r. Take risks
s. Get rid of excuses

2.3 The Creative Process
a. Imaginative
b. Practical

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S READING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	MAIN IDEA	GETTING THE FACTS	DRAWING CONCLUSIONS	CAUSE AND EFFECT	DETAILS	SEQUENCING	DIRECTIONS	UTILIZING INFORMATION	COMPARISON AND CONTRAST	SUMMARIZING/ PARAPHRASING	STRUCTURE	CRITICAL THINKING SKILLS	SKIMMING AND SCANNING	VOCABULARY	ORGANIZING INFORMATION
ACCOUNTING/CLERK BOOKKEEPING	X	X	X	X	X	X	X	X			X	X	X	X	X
AUTO MECHANIC	X	X	X	X	X		X	X	X		X	X		X	X
CASHIER	X	X	X	X	X	X	X	X				X		X	X
CASTER	X	X		X	X	X	X	X				X		X	X
COOK		X		X	X	X	X	X				X		X	X
CUSTODIAN	X	X		X	X		X	X				X		X	X
CUSTODIAL SUPERVISOR	X	X	X	X	X		X	X	X		X	X	X	X	X
CUSTOMER SERVICE REP.	X	X	X		X	X	X	X	X			X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S READING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	MAIN IDEA	GETTING THE FACTS	DRAWING CONCLUSIONS	CAUSE AND EFFECT	DETAILS	SEQUENCING	DIRECTIONS	UTILIZING INFORMATION	COMPARISON AND CONTRAST	SUMMARIZING/ PARAPHRASING	STRUCTURE	CRITICAL THINKING SKILLS	SKIMMING AND SCANNING	VOCABULARY	ORGANIZING INFORMATION
DATA ANALYST	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATA ENTRY CLERK	X	X			X	X	X			X				X	X
DIE ATTACH OPERATOR	X	X	X		X	X	X	X			X	X		X	X
DIRECT CARE WORKER	X	X	X	X	X	X	X	X	X			X		X	X
DRIVER	X	X	X	X	X	X	X	X		X		X			X
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X	X	X			X		X	X
ENGINEERING ASSISTANT	X	X	X	X	X		X	X				X		X	X
FOOD SERVICE WORKER	X	X			X		X	X						X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S READING CURRICULUM MATRIX

OCCUPATIONS / COMPETENCIES	MAIN IDEA	GETTING THE FACTS	DRAWING CONCLUSIONS	CAUSE AND EFFECT	DETAILS	SEQUENCING	DIRECTIONS	UTILIZING INFORMATION	COMPARISON AND CONTRAST	SUMMARIZING/ PARAPHRASING	STRUCTURE	CRITICAL THINKING SKILLS	SKIMMING AND SCANNING	VOCABULARY	ORGANIZING INFORMATION
FORKLIFT OPERATOR	X	X			X		X	X				X		X	X
GROUNDSKEEPER	X	X			X		X					X		X	X
HEALTH CLERK	X	X	X		X	X	X	X	X			X		X	X
HOUSEKEEPER	X				X		X	X				X		X	X
LASER PROBE OPERATOR	X	X		X	X		X	X	X		X	X		X	X
LAUNDRY WORKER	X	X			X	X	X	X				X		X	X
MACHINIST/ TOOL MAKER	X	X	X		X		X	X			X	X		X	X
MAINTENENCE WORKER	X	X	X	X	X	X	X	X			X	X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S READING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	MAIN IDEA	GETTING THE FACTS	DRAWING CONCLUSIONS	CAUSE AND EFFECT	DETAILS	SEQUENCING	DIRECTIONS	UTILIZING INFORMATION	COMPARISON AND CONTRAST	SUMMARIZING/ PARAPHRASING	STRUCTURE	CRITICAL THINKING SKILLS	SKIMMING AND SCANNING	VOCABULARY	ORGANIZING INFORMATION
MANUFACTURING TECHNICIAN	X	X	X	X	X		X	X			X	X		X	X
NURSES' AIDE	X	X		X	X	X	X	X		X	X	X	X	X	X
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PAINTER	X	X		X	X		X					X		X	X
PLUMBER	X	X	X	X	X	X	X	X	X			X		X	X
RECEPTIONIST	X	X			X		X					X		X	X
REHABILITATION TECH.	X	X	X	X	X	X	X	X	X	X		X		X	X
RESIDENTIAL SUPERVISOR	X	X	X	X	X	X	X	X	X	X		X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S READING CURRICULUM MATRIX

OCCUPATIONS / COMPETENCIES	MAIN IDEA	GETTING THE FACTS	DRAWING CONCLUSIONS	CAUSE AND EFFECT	DETAILS	SEQUENCING	DIRECTIONS	UTILIZING INFORMATION	COMPARISON AND CONTRAST	SUMMARIZING/ PARAPHRASING	STRUCTURE	CRITICAL THINKING SKILLS	SKIMMING AND SCANNING	VOCABULARY	ORGANIZING INFORMATION
SALES/MARKETING	X	X	X	X	X	X	X	X	X	X		X		X	X
SECRETARY CLERK TYPIST	X	X	X		X	X	X	X		X		X	X	X	X
SHIPPING CLERK/ SUPERVISOR	X	X	X	X	X	X	X	X				X		X	X
TOOL AND DIE OPERATOR	X	X	X	X	X		X				X	X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
ACCOUNTING/CLERK BOOKKEEPING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AUTO MECHANIC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
BATCH PLANT OPERATOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CASHIER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CASTER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
COOK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CUSTODIAN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CUSTODIAL SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

OCCUPATIONS / COMPETENCIES	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
CUSTOMER SERVICE REPRESENTATIVE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATA ANALYST	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATA ENTRY CLERK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DESIGNER	X	X	X	X	X	X	X	X	X	X	X	X	X		X
DIE ATTACH OPERATOR	X	X	X	X	X	X	X	X	X	X	X	X		X	X
DIRECT CARE WORKER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DRAFTER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DRIVER	X	X	X	X	X	X	X	X	X	X	X	X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X			X	X	X		X	X
ELECTROPLATING OPERATOR										X	X	X		X	X
ENGINEERING ASSISTANT	X	X	X	X	X	X	X			X	X	X	X	X	X
FOOD SERVICE WORKER	X	X	X	X	X	X	X			X	X	X		X	X
FORKLIFT OPERATOR	X	X	X	X	X	X	X			X	X	X		X	X
FORM MAKER										X	X	X		X	X
GROUNDSKEEPER	X	X	X	X	X	X	X			X	X	X		X	X
HEALTH CLERK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
HOUSEKEEPER	X	X	X	X	X	X	X	X		X	X	X		X	X
LASER PROBE OPERATOR	X	X	X	X	X	X	X			X	X	X		X	X
LAUNDRY WORKER	X	X	X	X	X	X	X			X	X	X		X	X
MACHINIST/ TOOL MAKER	X	X	X	X	X	X	X			X	X	X		X	X
MAINTENENCE WORKER	X	X	X	X	X	X	X	X	X	X	X		X	X	X
MANUFACTURING TECHNICIAN	X	X	X	X	X	X	X			X	X	X		X	X
NURSES' AIDE	X	X	X	X	X	X	X	X		X	X	X		X	X
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

A32

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
PATTERN MAKER	X	X	X	X	X	X	X			X	X	X		X	X
PAINTER	X	X	X	X	X	X	X			X	X	X		X	X
PERSONNEL CLERK	X	X	X	X	X	X	X			X	X	X		X	X
PLUMBER	X	X	X	X	X	X	X			X	X	X		X	X
PRODUCTION OPERATOR	X	X	X	X	X	X	X			X	X	X		X	X
QUALITY CONTROL INSPECTOR	X	X	X	X	X	X	X			X	X	X		X	X
RECEPTIONIST	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
REHABILITATION TECHNICIAN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S WRITING CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	SENTENCE STRUCTURE	PARTS OF SPEECH	PHRASES & CLAUSES	PARALLEL CONSTRUCTION	PUNCTUATION	CAPITALIZATION	PROOFREADING/ EDITING	NARRATIVE WRITING	PERSUASIVE WRITING	DESCRIPTIVE WRITING	EXPOSITORY WRITING	INCIDENT REPORT WRITING	BUSINESS LETTER WRITING	MEMO WRITING	SPELLING
RESIDENTIAL SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SALES/MARKETING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SECRETARY CLERK TYPIST	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SHIPPING CLERK/ SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TOOL AND DIE OPERATOR	X	X	X	X	X	X	X	X			X	X	X		X

The first seven areas were viewed as basic skills necessary for literacy in writing.

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
ACCOUNTING/CLERK BOOKKEEPING	X	X	X	X	X	X	X	X	X	X			X	X	X
AUTO MECHANIC	X	X	X	X	X	X	X	X	X	X	X		X	X	X
ASSEMBLER	X	X	X	X	X	X	X	X	X	X				X	X
BRAKE PRESS OPERATOR	X	X	X	X	X	X	X	X	X	X				X	X
BUYER	X	X	X	X	X	X	X	X	X	X				X	X
CASHIER	X		X	X	X	X	X	X	X	X				X	X
CASTER	X	X	X	X	X	X	X	X	X	X	X			X	X
COMPUTER ASSISTANT	X	X	X	X	X	X	X	X	X	X	X	X		X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
CUSTODIAN	X	X	X	X	X	X	X	X	X	X	X		X	X	X
CUSTODIAL SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X		X		X
CUSTOMER SERVICE REP.	X		X	X	X	X	X	X	X	X	X			X	X
DATA ANALYST	X	X	X	X	X	X	X	X	X	X		X	X	X	X
DATA ENTRY CLERK	X	X	X	X	X	X	X	X	X	X			X		X
DIE ATTACH OPERATOR	X	X	X	X	X	X	X	X	X	X	X		X	X	X
DIRECT CARE WORKER	X		X	X	X	X	X	X	X	X			X		X
DRIVER	X	X	X	X	X	X	X	X	X	X			X		X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X	X	X				X	X	X
ENGINEERING ASSISTANT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIREFIGHTER	X	X	X	X	X	X	X	X	X	X	X		X		X
FOOD SERVICE WORKER	X	X	X	X	X	X	X	X	X	X			X		X
FORKLIFT OPERATOR	X		X	X	X	X	X	X		X			X		X
GROUNDSKEEPER	X	X	X	X	X	X	X	X	X	X	X		X	X	X
HEALTH CLERK	X	X	X	X	X	X	X	X					X		X
HOUSEKEEPER	X			X	X	X	X	X		X			X		X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
LASER PROBE OPERATOR	X	X	X	X			X	X	X	X			X	X	X
LAUNDRY WORKER	X			X			X	X					X		X
MACHINIST/ TOOL MAKER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MAINTENENCE WORKER	X	X	X	X	X	X	X	X	X	X	X		X	X	X
MANUFACTURING TECHNICIAN	X	X	X	X		X	X	X	X	X	X	X	X		X
MANUFACTURING INSPECTOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NURSES' AIDE	X	X	X	X	X	X	X	X	X				X		X
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
PAINTER	X	X	X	X	X	X	X	X	X	X			X	X	X
PLUMBER	X	X	X	X	X	X	X	X	X	X	X		X	X	X
PRODUCT TEST SPECIALIST	X	X	X	X	X	X	X	X	X	X			X		X
QUALITY CONTROL INSPECTOR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RECEPTIONIST	X	X	X	X	X	X	X	X	X	X			X		X
REHABILITATION TECH.	X	X	X	X	X	X	X	X	X	X			X	X	X
RESIDENTIAL SUPERVISOR	X		X	X	X	X	X	X	X	X			X		X
SALES/MARKETING	X	X	X	X	X	X	X	X	X	X			X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S MATH CURRICULUM MATRIX

COMPETENCIES / OCCUPATIONS	WHOLE NUMBERS	FRACTIONS	DECIMALS	PERCENTS	ENGLISH MEASURE	METRIC MEASURE	AVERAGE	RATIO/ PROPORTION	TABLES/CHARTS/ GRAPHS/MAPS	PERIMETER/ AREA/VOLUME	OTHER GEOMETRY	ALGEBRA	ESTIMATION	SCALE DRAWINGS	CALCULATOR
SECRETARY CLERK TYPIST	X	X	X	X			X	X	X				X	X	X
SHEET METAL WORKER	X	X	X	X		X	X	X	X	X			X	X	X
SHIPPING CLERK/ SUPERVISOR	X	X	X	X	X	X	X	X	X	X			X		X
SPOT WELDER	X	X	X	X		X	X	X	X	X			X	X	X
SPRAY PAINTER	X	X	X	X		X	X	X	X	X			X	X	X
SYSTEMS OPERATOR	X	X	X	X		X	X	X	X	X			X	X	X
TOOL AND DIE OPERATOR	X	X	X	X	X		X	X	X	X	X	X	X	X	X

A40

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S COMMUNICATION AND LISTENING SKILLS MATRIX

COMPETENCIES / OCCUPATIONS	COMMUNICATION STYLE	NONVERBAL	VERBAL	ASSERTIVE	CONFLICT RESOLUTION	NEGOTIATING	ROADBLOCKS	EFFECTIVE TECHNIQUES	LISTENING	POWERFUL COMM. SKILLS	IDENTIFYING DIFFICULT PEOPLE	COPING WITH DIFFICULT PEOPLE
ACCOUNTING/CLERK	X	X	X	X	X	X	X	X	X	X	X	X
BOOKKEEPING	X	X	X	X	X	X	X	X	X	X	X	X
CASTER	X	X	X	X	X	X	X	X	X	X	X	X
CUSTODIAN	X	X	X	X	X	X	X	X	X	X	X	X
CUSTODIAN SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X	X
CUSTOMER SERVICE REPRESENTATIVE	X	X	X	X	X	X	X	X	X	X	X	X
DATA ANALYSIST	X	X	X	X	X	X	X	X	X	X	X	X
DATA ENTRY CLERK	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S COMMUNICATION AND LISTENING SKILLS MATRIX

COMPETENCIES / OCCUPATIONS	COMMUNICATION STYLE	NONVERBAL	VERBAL	ASSERTIVE	CONFLICT RESOLUTION	NEGOTIATING	ROADBLOCKS	EFFECTIVE TECHNIQUES	LISTENING	POWERFUL COMM. SKILLS	IDENTIFYING DIFFICULT PEOPLE	COPING WITH DIFFICULT PEOPLE
DIE ATTACH OPERATOR	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X	X	X	X	X	X
ENGINEERING ASSISTANT	X	X	X	X	X	X	X	X	X	X	X	X
FORKLIFT OPERATOR	X	X	X	X	X	X	X	X	X	X	X	X
MACHINIST/ TOOL MAKER	X	X	X	X	X	X	X	X	X	X	X	X
MAINTENENCE WORKER	X	X	X	X	X	X	X	X	X	X	X	X
MANUFACTURING TECHNICIAN	X	X	X	X	X	X	X	X	X	X	X	X
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S COMMUNICATION AND LISTENING SKILLS MATRIX

OCCUPATIONS / COMPETENCIES	COMMUNICATION STYLE	NONVERBAL	VERBAL	ASSERTIVE	CONFLICT RESOLUTION	NEGOTIATING	ROADBLOCKS	EFFECTIVE TECHNIQUES	LISTENING	POWERFUL COMM. SKILLS	IDENTIFYING DIFFICULT PEOPLE	COPING WITH DIFFICULT PEOPLE
PAINTER	X	X	X	X	X	X	X	X	X	X	X	X
RECEPTIONIST	X	X	X	X	X	X	X	X	X	X	X	X
SALES/MARKETING AIDE	X	X	X	X	X	X	X	X	X	X	X	X
SECRETARY	X	X	X	X	X	X	X	X	X	X	X	X
SHIPPING CLERK/ SUPERVISOR	X	X	X	X	X	X	X	X	X	X	X	X
TOOL AND DIE OPERATOR	X	X	X	X	X	X	X	X	X	X	X	X

*The above competencies have been designated as the minimum communication & listening skills necessary for success on the job.

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S PROBLEM-SOLVING CURRICULUM MATRIX

OCCUPATIONS	COMPETENCIES	ISKIKAWA DIAGRAM	CHECK SHEETS	PARETO DIAGRAM	RUN CHART	HISTOGRAM	SCATTERGRAM	FLOW CHARTING	PROBLEM SOLVING STEPS	CREATIVE PROBLEM SOLVING
ACCOUNTING/CLERK	X	X	X	X			X	X	X	
BOOKKEEPING	X	X	X			X	X	X	X	
CASTER	X	X	X				X	X	X	
CUSTODIAN	X	X	X				X	X	X	
CUSTODIAN SUPERVISOR	X	X	X	X			X	X	X	
CUSTOMER SERVICE REPRESENTATIVE	X	X	X	X			X	X	X	
DATA ANALYSIST	X	X	X	X	X	X	X	X	X	
DATA ENTRY CLERK	X	X	X	X			X	X	X	

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S PROBLEM-SOLVING CURRICULUM MATRIX

OCCUPATIONS	COMPETENCIES	ISKIKAWA DIAGRAM	CHECK SHEETS	PARETO DIAGRAM	RUN CHART	HISTOGRAM	SCATTERGRAM	FLOW CHARTING	PROBLEM SOLVING STEPS	CREATIVE PROBLEM SOLVING
DIE ATTACH OPERATOR	X	X	X	X	X	X	X	X	X	
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X	X	X	
ENGINEERING ASSISTANT	X	X	X	X	X	X	X	X	X	
FORKLIFT OPERATOR	X	X	X				X	X	X	
MACHINIST/ TOOL MAKER	X	X	X				X	X	X	
MAINTENENCE WORKER	X	X	X				X	X	X	
MANUFACTURING TECHNICIAN	X	X	X	X	X	X	X	X	X	
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X	

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S PROBLEM-SOLVING CURRICULUM MATRIX

OCCUPATIONS	COMPETENCIES	ISKIKAWA DIAGRAM	CHECK SHEETS	PARETO DIAGRAM	RUN CHART	HISTOGRAM	SCATTERGRAM	FLOW CHARTING	PROBLEM SOLVING STEPS	CREATIVE PROBLEM SOLVING
ACCOUNTING/CLERK	X	X	X	X				X	X	X
BOOKKEEPING	X	X	X				X	X	X	X
CASTER	X	X	X					X	X	X
CUSTODIAN	X	X	X					X	X	X
CUSTODIAN SUPERVISOR	X	X	X	X				X	X	X
CUSTOMER SERVICE REPRESENTATIVE	X	X	X	X				X	X	X
DATA ANALYSIST	X	X	X	X	X	X		X	X	X
DATA ENTRY CLERK	X	X	X	X				X	X	X

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S PROBLEM-SOLVING CURRICULUM MATRIX

OCCUPATIONS / COMPETENCIES	ISKIKAWA DIAGRAM	CHECK SHEETS	PARETO DIAGRAM	RUN CHART	HISTOGRAM	SCATTERGRAM	FLOW CHARTING	PROBLEM SOLVING STEPS	CREATIVE PROBLEM SOLVING
DIE ATTACH OPERATOR	X	X	X	X	X	X	X	X	X
ELECTRONICS ASSEMBLER	X	X	X	X	X	X	X	X	X
ENGINEERING ASSISTANT	X	X	X	X	X	X	X	X	X
FORKLIFT OPERATOR	X	X	X				X	X	X
MACHINIST/ TOOL MAKER	X	X	X				X	X	X
MAINTENENCE WORKER	X	X	X				X	X	X
MANUFACTURING TECHNICIAN	X	X	X	X	X	X	X	X	X
OPERATIONS COORDINATOR	X	X	X	X	X	X	X	X	X

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PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT'S PROBLEM-SOLVING CURRICULUM MATRIX

OCCUPATIONS / COMPETENCIES	ISHIKAWA DIAGRAM	CHECK SHEETS	PARETO DIAGRAM	RUN CHART	HISTOGRAM	SCATTERGRAM	FLOW CHARTING	PROBLEM SOLVING STEPS	CREATIVE PROBLEM SOLVING
PAINTER	X	X	X				X	X	X
RECEPTIONIST	X	X	X			X	X	X	X
SALES/MARKETING AIDE	X	X	X			X	X	X	X
SECRETARY	X	X	X			X	X	X	X
SHIPPING CLERK/ SUPERVISOR	X	X	X	X		X	X	X	X
TOOL AND DIE OPERATOR	X	X	X				X	X	X

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Pima County Adult Education
Workplace Education Project

POWER CONVERTIBLES

ESOL 10-Week Curriculum

Two classes per week lasting two hours each, for a total of 40 hours of instruction.

Week 1	a	Pretest, needs assessment
	b	Tools used on the job
	2a	Proper use and maintenance of tools
	2b	Describing which tool to use when
	3a	Describing processes in general
	3b	Describing specific work process and asking questions for clarification
	4a	Teaching someone else the job process
	4b	Anticipating and solving problems on the job
	5a	Safety equipment, reason for, consequences for failure to use
	5b	Describing proper use of safety equipment informing new workers of need
	6a	Identifying hazards at work and working around them safely
	6b	Reporting accidents and seeking attention
	7a	Following directions around the worksite
	7b	Finding things within own area
	8a	Understanding company rules and regulations
	8b	Demystifying the company handbook
	9a	Understanding benefits
	9b	Performance review, understanding the criteria
	10a	Dealing with criticism, fair and unfair
	10b	Post test

Pima County Adult Education
Workplace Education Project

POWER CONVERTIBLES
ESOL Lesson

Lesson Objectives: Demystifying the company handbook

Procedure:

1. Pass out translated version of one section of company handbook: PTO (Personal Time Off). Items not in order.

2. Working in pairs, participants look at each item in turn, ask and answer questions of each other to insure understanding. When they understand, they look up.

3. Participants, in pairs, form a question which is answered by the item.

4. After understanding is reached on all items, pass out original handbook section on PTO.

5. Participants match "easy" version to real handbook.
   a. vocabulary
   b. passive voice

6. Repeat with other sections of the handbook.

Pima County Adult Education
Workplace Education Project

POWER CONVERTIBLES
Pre-Test

1. At Power Convertibles, what is the first job in the assembly process?

2. Pin attach is after _____ and before _____.

3. The only job that everybody does is _____.

4. Duenh's job is _____.

5. What's your job?

6. What does PTO mean?

7. What is the difference between PTO and vacation?

8. What is the best thing to do if you have a flat tire on the way to work?

9. What does **tardy** mean?

10. What do you want to learn in the next ten weeks of this class?

Pima County Adult Education
Workplace Education Project

POWER CONVERTIBLES

Post-Test

1. At Power Convertibles, what is the last job in the assembly process?

2. What's the difference between *quality* and *quantity*?

3. Jose's job is _____.

4. Where does the product go after you work with it?

5. What's the best thing to do when you wake up on a work day with a headache and a bad cold?

6. What's a fancy name for *evaluation?*

7. What is the one job that everybody does at Power Convertibles?

8. Where's the encap room?

9. If you think there is a mistake in your paycheck, what do you do?

10. What's an example of a special religious holiday?

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT

ESOL Needs Questionnaire

1. Which of these people do you use English with regularly?

	several times/day	at least once/day	several times/week	at least once/week	never
Supervisor	☐	☐	☐	☐	☐
Co-workers	☐	☐	☐	☐	☐
Customers or clients	☐	☐	☐	☐	☐
Workers from other departments	☐	☐	☐	☐	☐
Company administrators	☐	☐	☐	☐	☐
Spouse	☐	☐	☐	☐	☐
Relatives	☐	☐	☐	☐	☐
Children's teachers	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐

2. In what situation do you most often use English with these people?

	face-to-face	phone	letter	memo
Supervisor	☐	☐	☐	☐
Co-workers	☐	☐	☐	☐
Customer	☐	☐	☐	☐
Workers from other departments	☐	☐	☐	☐

Company administrators	☐	☐	☐	☐
Spouse	☐	☐	☐	☐
Relatives	☐	☐	☐	☐
Children's teachers	☐	☐	☐	☐
Other	☐	☐	☐	☐

3. Are you nervous speaking English in any of these situations?

	yes, a lot	yes, some	not very much	no, not at all
Talking to Supervisor	☐	☐	☐	☐
Talking to officers of the company	☐	☐	☐	☐
Engineers or other professionals	☐	☐	☐	☐

4. In which of these situations are you most aware of your need for better English skills? Check all those that apply.

_____ When I want to ask my supervisor a question.

_____ When my supervisor talks to me.

_____ When I talk with other workers at work.

_____ When I talk with other workers during breaks.

_____ When I want to talk to neighbors.

_____ When I want to talk to my children's friends or teachers.

_____ Other _____ .

5. What do you usually do when you're in a group where everyone is speaking English?

6. Do you try to avoid situations where you would have to speak English?

7. Please describe a recent situation where you wished your English were better.

8. Do you ever ask a co-worker to help you understand something at work? Whom do you ask?

9. What are your plans for the next six months?

   _____ continue working here

   _____ study more English

   _____ learn a new skill

   _____ study in college/university

   _____ look for another job

   _____ other _____

10. What are your long term plans in the U.S.?

   _____ continue working here

   _____ study more English

   _____ learn a new skill

   _____ study in college/university

   _____ get a better job in this same company

   _____ get a better job in another company

   _____ start my own business

11. What percent of your time is spent speaking English?

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
SUPERVISOR/MANAGER EVALUATION

Workplace _____

Employee's Name _____

Manager/Supervisor Name _____

Course Title_____ Date_____

DIRECTIONS: Please indicate how much this employee has improved after taking the above class. Circle the rating that applies for each question. If you want to elaborate on any question, please use the back of this form.

1. Did you see an improvement in the employee's English? If so, how much?

   Great Moderate None Worse Not Applicable

2. Did you see an improvement in the employee's attitude, morale or self-esteem? If so, how much?

   Great Moderate None Worse Not Applicable

3. Have you seen better attendance, promptness, etc. by this employee?

   Great Moderate None Worse Not Applicable

4. Have you seen an increase in productivity for this employee? If so, how much?

   Great Moderate None Worse Not Applicable

DIRECTIONS: Please write your answers to these questions. If you need more space, please use the back of this sheet.

5. Has attendance in the class helped the employee on the job? If so, how?

6. Would you encourage others to attend the class?

7. Do you have any other comments pertaining to this employee in relation to the above class?

PIMA COUNTY ADULT EDUCATION
WORKPLACE EDUCATION PROJECT
COURSE EVALUATION FORM

Workplace_____

Course Title_____

Course Dates: From_____ To_____

Instructor_____

DIRECTIONS: Please circle the answer to each question. Write comments on the back of this sheet.

1. Please rate the overall quality of the course.

   Excellent Very Good Good Fair Poor

2. Please rate the effectiveness of the materials used in the course.

   Excellent Very Good Good Fair Poor

3. Please rate the instructor's presentation and helpfulness.

   Excellent Very Good Good Fair Poor

4. How supportive has your supervisor been while you have been taking the class?

   Excellent Very Good Good Fair Poor

5. How supportive have your coworkers been while you have been taking the class?

   Excellent Very Good Good Fair Poor

DIRECTIONS: Write your answers to these questions. Use the back of this sheet for more comments.

6. Has this class helped you on the job? If so, how?

7. Has the course changed how you feel about yourself, your education, or your job?

8. Please give us feedback about the instructor.

9. What ideas do you have to improve the materials in this class?

10. What was the best feature of this course?

11. If you could change one thing about the course, what would it be?

12. Was your participation in this class voluntary? yes___ no__

Literacy program receives federal honors

Effort has helped more than 1,000 Tucson workers

By L.A. Mitchell
The Arizona Daily Star

Four years ago, Pima County, armed with a $72,000 grant, set out to revolutionize workplace literacy programs.

Today the Workplace Education Project, coordinator Linda Hellman and its instructors have helped more than 1,000 employees at 23 Tucson companies learn everything from algebra to effective listening.

The federally funded Workplace Education Project has received kudos from the U.S. Department of Education as one of the top workplace projects nationwide.

Hellman's program is one of a handful that have received four grants from the National Workplace Literacy Program in Washington, D.C. Few workplace education programs have received more than one.

The program, administered through the Pima County Adult Education agency, provides free or low-cost training programs to local companies. Although the program aggressively promotes literacy, instructors will help companies upgrade a variety of workplace skills.

"I see it as an incredibly valuable gift to the community," said Melissa Welborn, human resources director for Tri-Tronics Inc. in Tucson. "It's extremely needed."

Hellman attributes the progam's success to a national problem: Companies, she said, have few low-cost, quality alternatives to upgrade the skills of their employees.

Few companies have the funds to review a topic that employees may have mastered years ago but need a refresher course in.

And in a changing workplace, some employers don't know where to start when a group of employees needs additional training to adapt to new technologies.

"You need a higher level of skills today to get things done," Hellman explained.

American reading abilities

Reading remains an emphasis in workplace programs that obtain federal funding. According to the U.S. Department of Education, one of every five American workers reads below the eighth-grade level, and one of every eight reads below the fourth-grade level.

Unlike other university or community college programs, Tucson's workplace education project has no catalog of classes, and instruction is based on what each company needs.

Ed Compean, The Arizona Daily St

Elaine Dow, an instructor with the Workplace Education Project, hands out assignments in her communications class at Burr-Brown

Whenever possible, instructors model classes after what the employee is required to do in the workplace.

"What's great about our program is that it's tied to what people need in their jobs," Hellman said.

At Tri-Tronics, where program instructors teach English, employee handbooks and training manuals are used in class. Tri-Tronics manufactures electronic dog collars.

Many of the company's highly skilled manufacturing workers are Vietnamese who enjoy the program's English classes, said Tri-Tronics' Welborn.

Employees who attend these classes bring new confidence to their jobs, she said.

"We noticed the difference in our employees right away," she said. "A lot of times when you don't speak English well, you don't interject your opinion. I've seen a great improvement in (employees') confidence levels."

The classes can be modeled after what a company needs at a particular time.

Hughes Missile Systems Co. last year offered employees a job-hunting class through the program when the company trimmed hundreds of people from its payroll.

Like Tri-Tronics, Burr-Brown Corp., a local electronics manufacturer, offered English classes to help a large number of manufacturing employees who speak other languages.

Classes not only are held at manufacturing companies, but also at the University of Arizona, Tucson Medical Center and the Westward Look Resort.

In addition to the city's larger high-tech firms, many smaller businesses of all types also have benefited from the education program, Hellman said.

"We would like to break into the small-business community more," she said. "You don't have to be a Hughes or a Burr-Brown to use our services."

In addition to English, reading, writing and math classes, Hellman's team also offers problem solving, GED preparation, communication, conflict resolution, test-taking and job-hunting classes.

Several times, the workplace education project group has worked with businesses that are trying to fix a specific problem or "brush up" on a particular topic. Hughes, Burr-Brown and AlliedSignal Controls and Accessories, for example, all have asked for classes that would enable employees to review fractions, decimals and other math fundamentals.

Although all classes are offered on-site and many companies allow employees to attend class on work time, there's still a stigma attached to skills classes that must be overcome, she said.

"Not remedial" classes

Hellman said traditionally "workplace literacy" meant classes for entry-level or hourly employees. But both hourly employees, salaried workers and managers have attended skills classes, she said.

"We can upgrade the skills of all employees," Hellman said. "They're not remedial (classes). For some, it's new material, for others it's review."

Participants, some with advanced academic degrees, are assessed before and after a class and all results are confidential, she said.

Each workplace education program funded by the National Workplace Literacy Program must also obtain community partners. Tucson's are the Arizona Consortium for Education and Training, the Southern Arizona Innkeepers' Association and the Tucson Metropolitan Chamber of Commerce.

Although some of Southern Arizona's largest companies have come to depend on the program, Hellman isn't sure of the fate of the workplace education project. The government awards funding for 18 month periods on a yearly basis, and Hellman must apply again for next year's funding in June.

Some companies make non-monetary donations to the programs and others who offer multiple classes make cash contributions. But the program couldn't survive on those contributions only, because classes are offered to companies at cost or for free.

Many local companies say on-site classes would be too costly without the workplace project.

"I don't think we'd be able to offer these classes (without this program)," said Ellen Grieser, manufacturing skills training manager for Burr-Brown Corp. "It's what we need for a reasonable cost."

Burr-Brown also likes classes tailored to its employees. Hellman's team visited the company several times before designing a curriculum.

Classes spend as much time on a lesson as the employees need.

"They're very flexible," Grieser said. "If people are getting hung up on fractions, they just take more time."

For more information about the workplace education project, call 884-8628.

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als whenever possible. More information can be found in two articles published in *Convene: The Journal of the Professional Convention Management Association*: "A Literacy Initiative" and "The ABCs of Launching a Literacy Program" (see References).

9. **Linda Hellman, Project Manager, Workplace Education Project, Pima County Adult Education**, 5331 West Plata, Suite 600, Tucson, AZ 85705, (602) 884-8628. A partnership effort of the Arizona Consortium for Education and Training, the Southern Arizona Innkeepers' Association, and Tucson Manufacturers Chamber of Commerce, the Workplace Education Project offers job-related basic skills, problem solving, communications, GED, and ESL instruction to workers in a number of industries including hotels and resorts.

10. **Wayne Snelgrove, Director of Adult Literacy Services, West Georgia Tech**, 303 Fort Drive, LaGrange, GA 30240, (706) 882-2518. Callaway Gardens, a resort in Pine Mountain, Georgia, worked with West Georgia Tech to assess the need for a general basic skills program for its employees who come from surrounding rural communities. As a result, an on-site program has been set up that serves employees of Callaway Gardens and the general public. Callaway Gardens provides the facilities, and West Georgia Tech the instructor and materials.

11. **Sarah Newcomb, Division of Adult Education & Literacy, U.S. Department of Education**, 400 Maryland Avenue SW, Washington, DC 20202-7240, (202) 205-9872. During the first three years (1988-89 through 1990-91) of its National Workplace Literacy Program, the DOE awarded some $41 million in grants to 149 business-education partnerships. As detailed in its publication, *Workplace Literacy: Reshaping the American Workforce* (see References), about 8 percent of the grants were awarded to the hotel and hospitality industry. The current (FY93) level of funding for the Program is about $19 million.

12. **Paul Kiley, Community Organization Specialist, Library Development Services, California State Library**, 1001 Sixth Street, Suite 300, Sacramento, CA 95814, (916) 324-7358. Kiley is a source of information on workplace programs in the state, including those in the hotel and food service areas.

13. **Sue Berg, State Literacy Coordinator, Governor's Council for Literacy**, Governor's Office of Children & Youth, P.O. Box 3044, Honolulu, HI 96802, (808) 586-0110. The Governor's Council for Literacy has been encouraging hotels and other businesses around the state to set up workplace literacy programs. The examples cited here are only a sampling of those that have been established or are under way: The Kaanapali Beach Hotel works with the Maui Hui Malama Literacy Program in Wailuku. Volunteers from the hotel staff and surrounding community are trained to be tutors for hotel employees desiring tutorial help. RockResorts and the international Longshoremen's and Warehousemen's Union in 1990 set up a basic skills program for workers on the island of Lanai. Participants are either making the transition from agricultural to tourist industry jobs or trying to qualify for better jobs in the pineapple industry. The Coco Palms Hotel in Kauai operates a job-linked basic skills program on compa. y premises in which employees tutor fellow employees, using a curriculum which includes vocabulary and concepts encountered on the job. The Hilton Hawaiian Village Hotel in Honolulu has established workplace literacy and ESL Programs. (See also #14 below.)

14. **Leatrice Haas, Director, Waikiki Lifelong Learning Center Project**, College of Education, University of Hawaii at Manoa, 1776 University Avenue, UA2 Room 7, Honolulu, HI 96844-0001, (808) 956-7834. The Waikiki Lifelong Learning Center (WLIC) Project is an expansion of Project SUCCESS, which began in 1988 with seven ITT Sheraton Hotels for the purpose of providing their housekeeping, food service, and other entry-level staff with ESL instruction, high school diploma preparation, and basic skills. The new Center, begun in 1992 with funding from the National Workplace Literacy Program of the U.S. Department of Education, has five business partners: the original group of ITT Sheraton Hotels in Hawaii, Aston Hotels and Resorts, HTH Corporation, Otaka Inc., and Tropic Art Design. It is administered by the Department of Curriculum and Instruction at the University of Hawaii's College of Education. The five business partners in WLIC constitute a total of 19 Waikiki hotels. The Center offers free workplace literacy instruction to all employees of the participating businesses to enhance their on-the-job skills and promotion opportunities, prepare them for U.S. citizenship and driver's license tests, and

A PARTNERSHIP IN LEARNING

You've read how some companies, large and small, are tackling their work force literacy problems. Now let's take a look at how those who are delivering the services view their role.

WORKPLACE EDUCATION PROJECT: Providing Skills for Life

The Workplace Education Project (Tucson, AZ) got off the ground in 1988 after receiving a $72,000 grant from the National Workplace Literacy Program (NWLP). It was one of 37 projects in the country to receive funding from the newly developed program, which is administered by the U.S. Department of Education. The money has allowed this Arizona program to work with several partners to develop training programs for businesses around the Tucson area. The $72,000 is the initial round of funding, and since that time the Project has been funded twice by NWLP.

The Workplace Education Project, part of the Pima County Adult Education program, brings together business partners who need help training employees. The business partners, who pay matching funds, include the Arizona Consortium for Education and Training, a group of manufacturing companies, hospitals and educational institutions, the Southern Arizona Innkeepers Association, a consortium of hotels and resort corporations, and the Tucson Metropolitan Chamber of Commerce, the latest partner. "This partner is our vehicle into the small-business community, so we can meet their needs," says Project Coordinator Linda Hellman.

"We work with them to develop training programs. We perform task analyses and find out what their workers need in skills training," she says. All classes for WEP's various partners are held on site. In most cases, employees are given release time to attend the courses, which are scheduled to accommodate working hours. Subjects vary, depending on the individual company's needs, but Hellman says the goal is to link learning to the job. "We try to be job related as much as possible and to become part of the workplace setting."

While providing job-linked learning is the primary goal, "we also try to make classes relevant to employees' lives outside of work." She points to problem-solving skills or working with numbers as examples of skills that transfer from the classroom to employees' jobs and to their lives. "We like to do things in class that will help workers beyond the job—such as improving their writing skills or furthering their general education. If employees tell us their company might have layoffs, we'll go into résumé writing if that's what workers want. We are very responsive to their needs."

Some classes teach the basics to get employees up to a level where they can go on to learn the skills required for their jobs or for job advancement. "We are currently teaching a reading and writing course for one company that draws from different departments, but we apply the lessons to their job situations. We get them into the writing activities they need, such as writing incident reports, memos, claim and adjustment letters, or performance appraisals. We put them into a context that has immediate value."

Class structure is nontraditional. "It's a very flexible program," she says. "We can work with individuals at their own levels. But people also work in groups, depending on their rate of learning." Employees take part in what Hellman calls cooperative learning activities. "We have them work in groups to enhance their team-building skills, which companies really want these days."

Hellman works very closely with each company to establish goals, and then fine-tunes or makes changes as classes move along. "This is a participatory program. We try to have workers involved in all aspects of the program. Advisory committees help us achieve this goal. We get a lot of input from the workers initially, but we've found that our first interviews don't always reveal all their needs," says Hellman. "Sometimes we're five weeks into a class before employees reveal additional problems they may have been reluctant to tell us about at the start. For instance, after a few weeks in a class we were running for a college's custodial workers, one problem came up. They had trouble getting college students out of the rest rooms so that they could clean up. That's not something you would necessarily discover in a task analysis. So we built scenarios to teach them how to deal with this situation." Such a problem-specific approach is a big benefit to workers.

Hellman stresses that classes are not just for entry-level or hourly workers. "We have supervisors and managers attend some classes with their employees." She says this is a positive development, since companies that are shifting to Total Quality Management want all employees to upgrade their skills. "We don't advertise our classes as remedial or basic," she adds. "This is an opportunity for everyone."

ERB (Employee Relations Bulletin, July 21, 1992, Report No..1764, Section III Bureau of Business Practice.)

Final Evaluation
Pima County Workplace Literacy Partnership
May 1, 1992 - October, 31, 1993

From May, 1992 through October, 1993, I evaluated the Workplace Education Project during five formal site visits and numerous telephone conversations. From the project's inception, site visit observations were incorporated into ongoing activities, and the project director's quarterly and final report reflect the recommendations made during those site visits. After each site visit, I met with the project director, Linda Hellman, and project staff to discuss my observations and suggestions. Linda met with project staff and partners in subsequent meetings to ensure the timely integration of the formative evaluation results.

I met with Linda and her staff five times during the grant period: June, 1992; October, 1992; January, 1993; June, 1993; and October, 1993. Although some of the site visits had a particular focus, e.g., advisory boards or curriculum, Linda usually arranged an itinerary for me that included observations of classes, meetings with company personnel and students, and tours of specific companies. Three of the visits also included participation in staff meetings. Following each site visit, Linda, appropriate project staff, and I reviewed my observations and made suggestions for improving project quality and effectiveness. Notes from each of these meetings are on file in my office. In December, 1993, I reviewed Linda's draft of the final report.

As indicated in the director's final report, the project has met and even exceeded the number of participants and worksites originally proposed. The

project has served a variety of small companies such as Concrete Design as well as international companies such as Hughes. In each company, project staff have designed and taught courses customized to each company's needs. Even more, project staff have attempted to individualize course instruction and materials to each student/worker's needs. They have been able to do this because of the strong collaboration among company personnel, project staff, and students. Potential problems or concerns were addressed immediately either in the classroom or within the active advisory boards at each worksite. The project and participating companies met the challenge to involve minority workers; as stated in the final report, more than half of the workers who participated in the classes were from minority groups (57%).

The project has also exceeded original project objectives in the area of curriculum. The staff have generated not only specific company materials, but they have also designed generic workplace curricula that they and other workplace education sites can build upon. Assessment tools have been refined and made available to other projects and worksites. In fact, one of the characteristics of this project has been its enthusiasm to share ideas and disseminate materials to as wide an audience as possible.

The Workplace Education Project has been a pleasure to monitor. Its excellent director has continually enjoyed strong working relationships not only with her staff but with personnel from each company as well as with students at each site. Common problems such as scheduling classes or release time are dealt with immediately and openly. Project staff continue to be equally gifted in the area of curriculum development as well as teaching. Evaluations of the instructors and courses are consistently high. Advisory board meetings are well

attended and at the initiation of one company, all of the participating companies decided to meet as a group to discuss the value and direction of current and future programs. Every participating company sent a representative and the group continues to meet as a "super" advisory board for the project. The project is continuing its exploration of ways to increase manager/supervisor feedback and to increase the numbers of workers who complete the courses. The Workplace Education Project represents an outstanding investment of tax dollars.

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